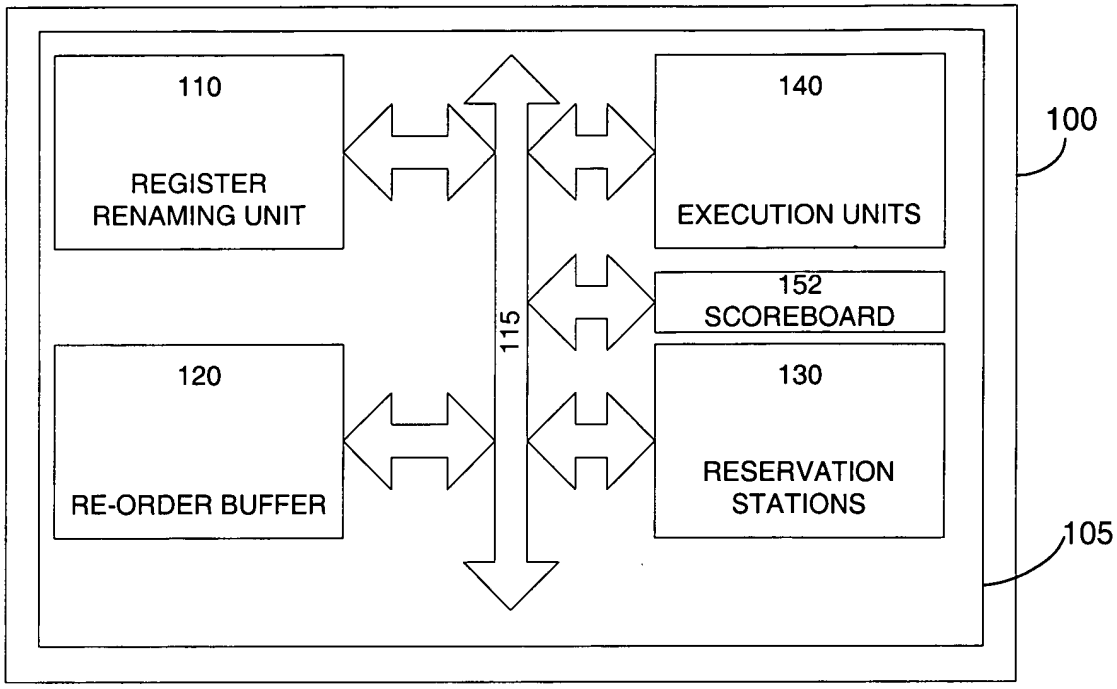
110
REGISTER
RENAMING UNIT
140
EXECUTION UNITS
100
152
SCOREBOARD
115
120
RE-ORDER BUFFER
130
RESERVATION
STATIONS
105

Fig. 1

0002T"T98T9260

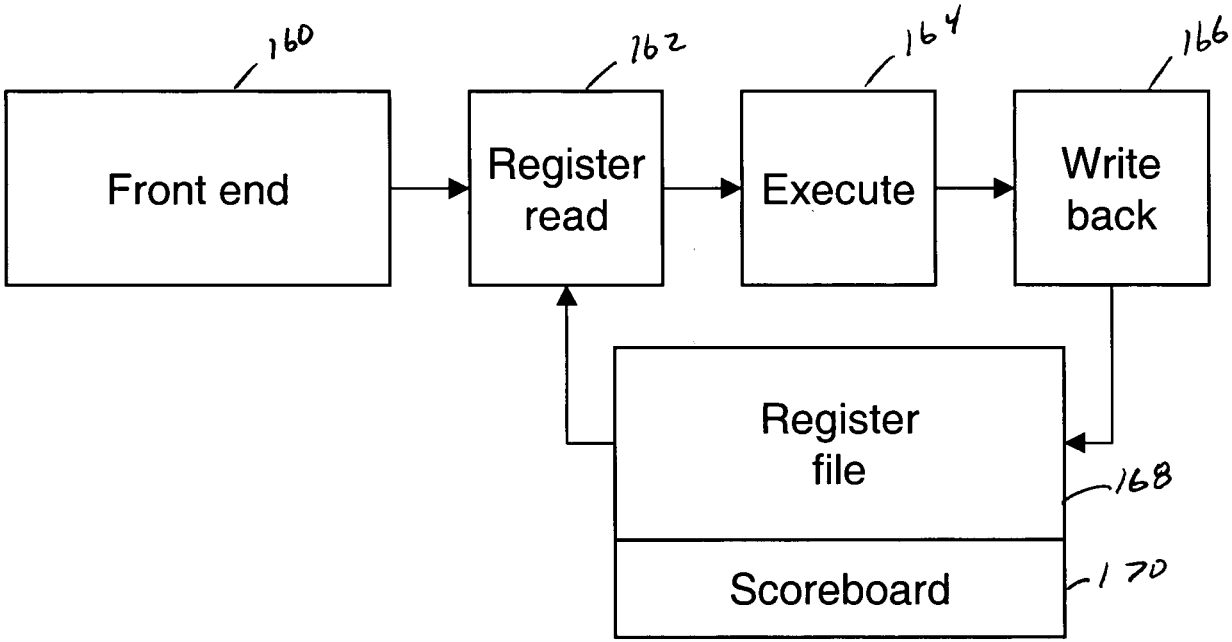

Fig. 1A

0002T"T98T5260

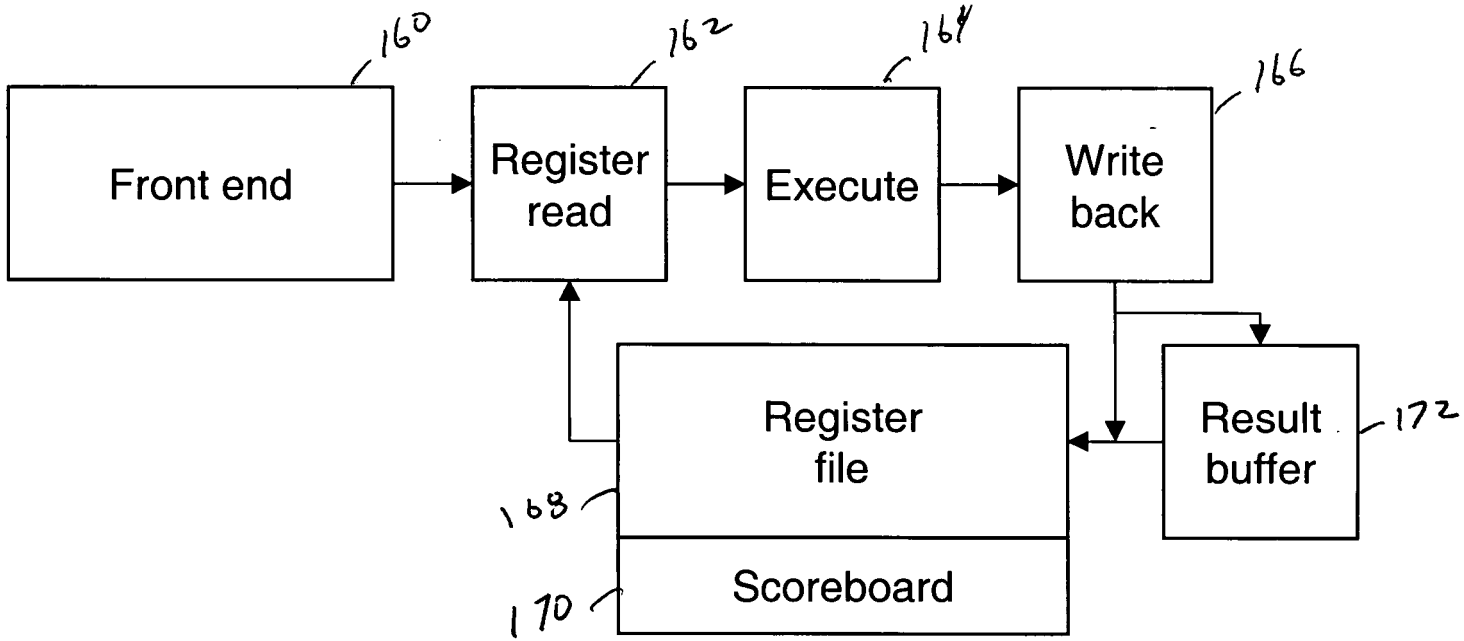

Fig. 1B

DOCKET T9875260

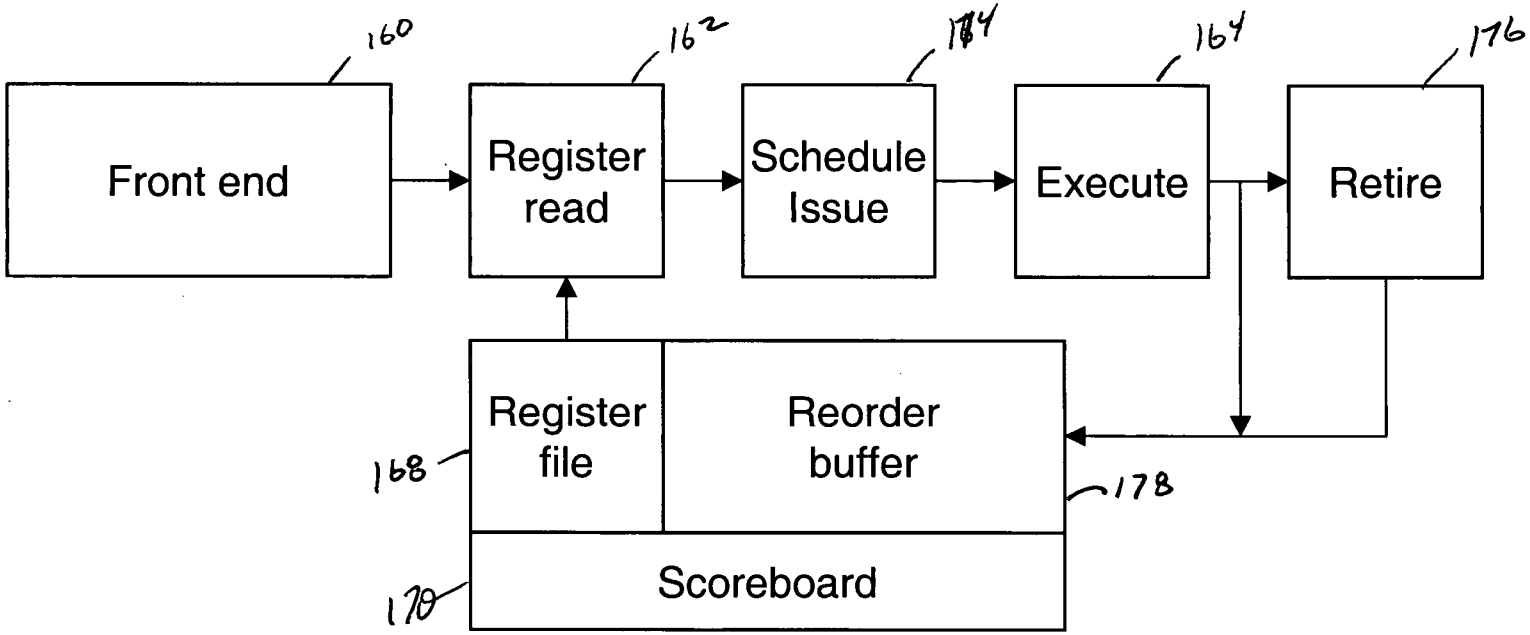

Fig. 1C

INST#		INSTRUCTION	DESCRIPTION
1:		mov 0 -> R1	# establishes R1
2:		ld (mem) -> R2	# loads R2 from memory
3:		cmp 0, R2 -> P1	# compares R2 to 0 and sets resulting predicate P1
4:	(P1)	add 5, R1 -> R1	# adds 5 to R1 if P1 is true
5:		sub 10, R1 -> R3	# sets R3 with the difference of 10 and R1

Fig. 2

0002574 "960259.0

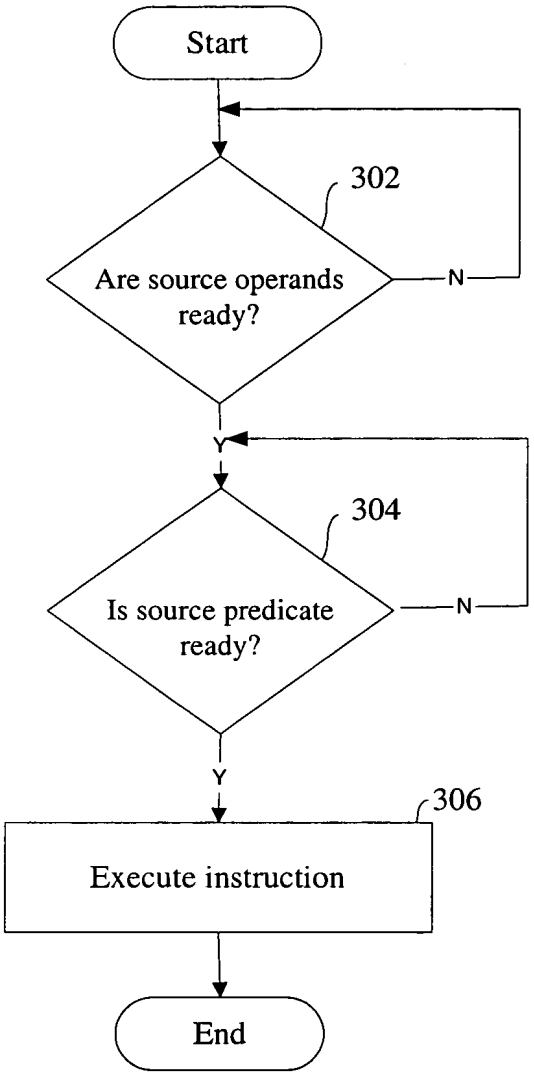

FIG. 3A

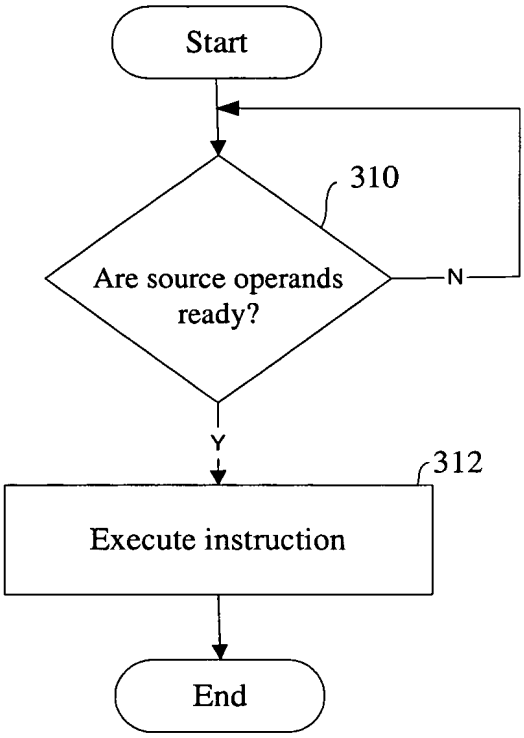

FIG. 3B

Docket No. 42390.P8008

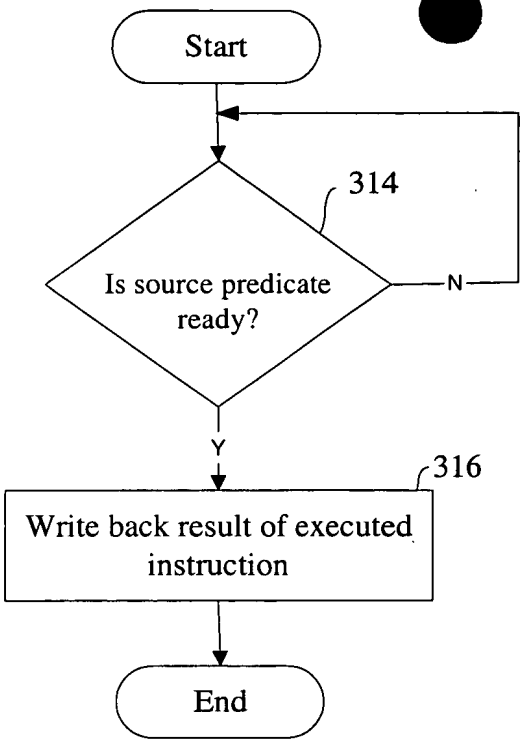
Start
314
Is source predicate ready?
N
Y
316
Write back result of executed instruction
End

FIG. 3C

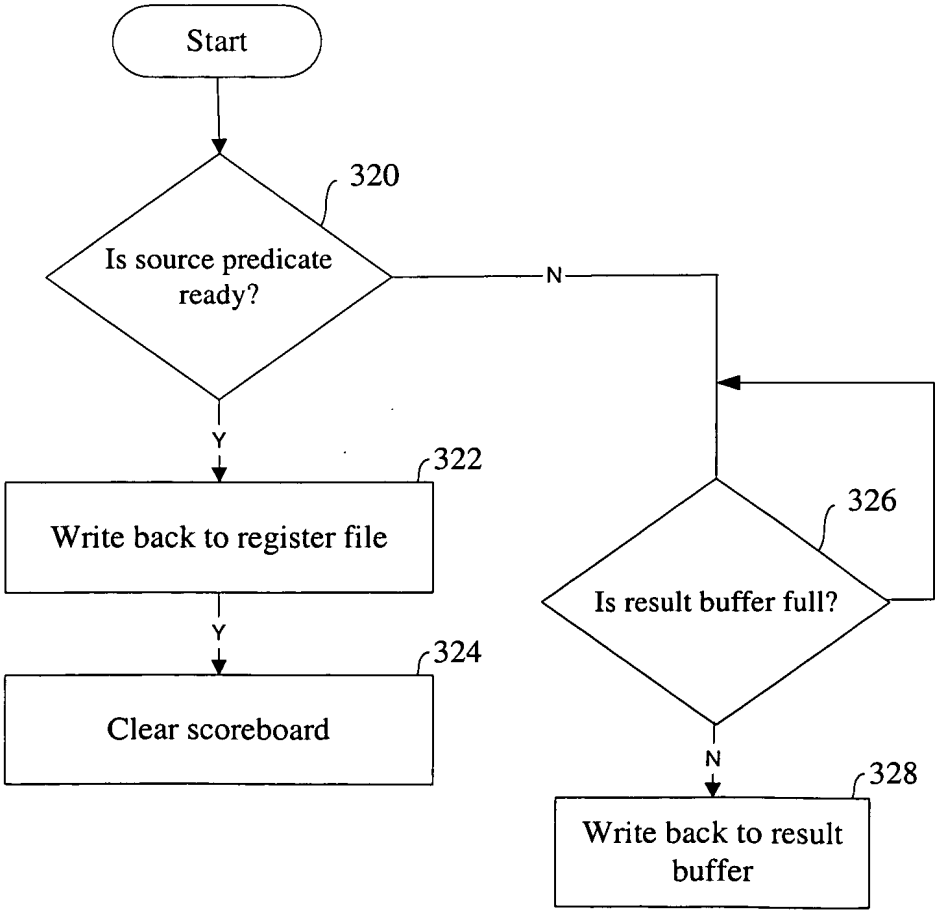
Start
320
Is source predicate ready?
N
Y
322
Write back to register file
Y
324
Clear scoreboard
326
Is result buffer full?
N
328
Write back to result buffer

FIG. 3D

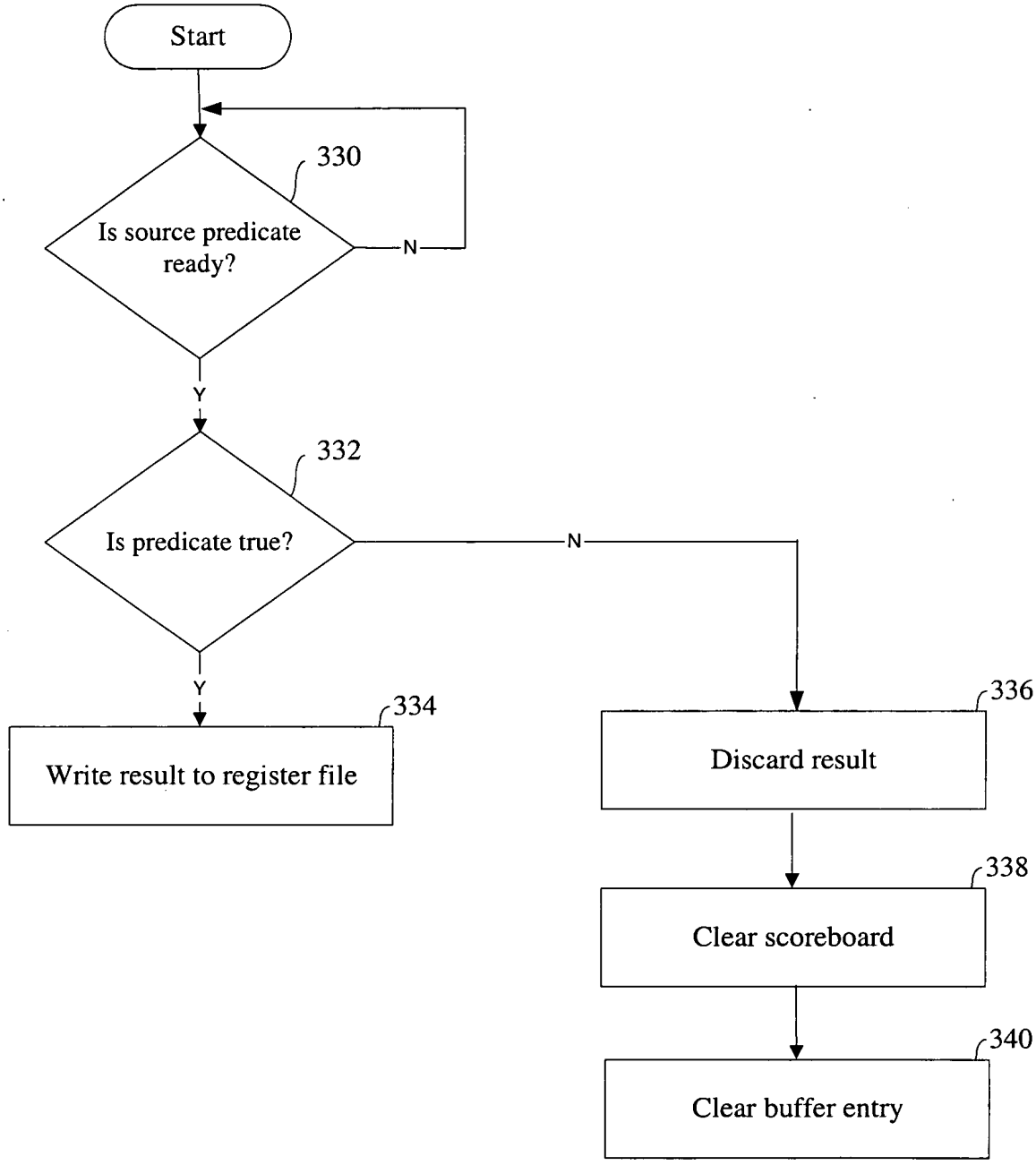
Start
330
Is source predicate ready?
N
Y
332
Is predicate true?
N
Y
334
Write result to register file
336
Discard result
338
Clear scoreboard
340
Clear buffer entry

FIG. 3E

Docket #: 42390.P4605

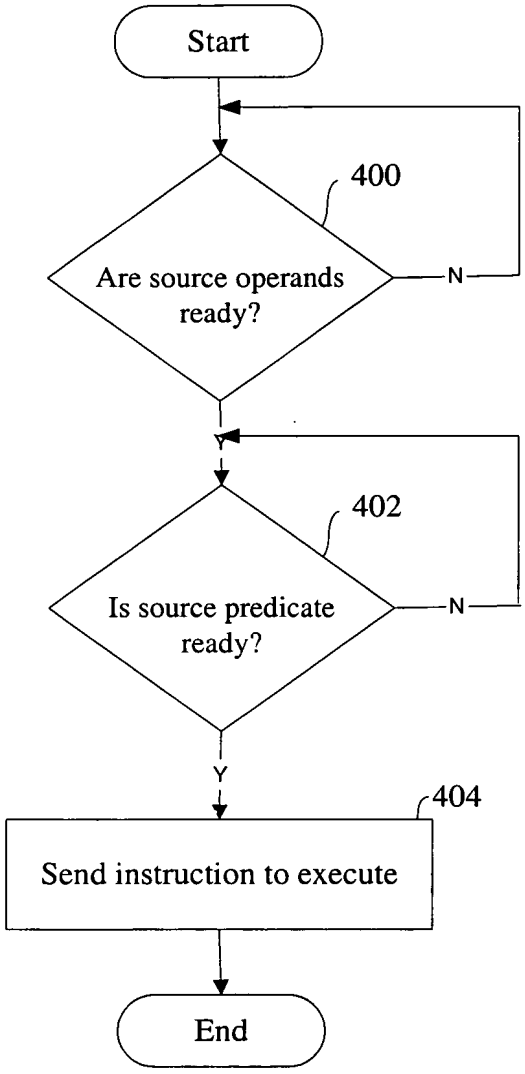

FIG. 4A

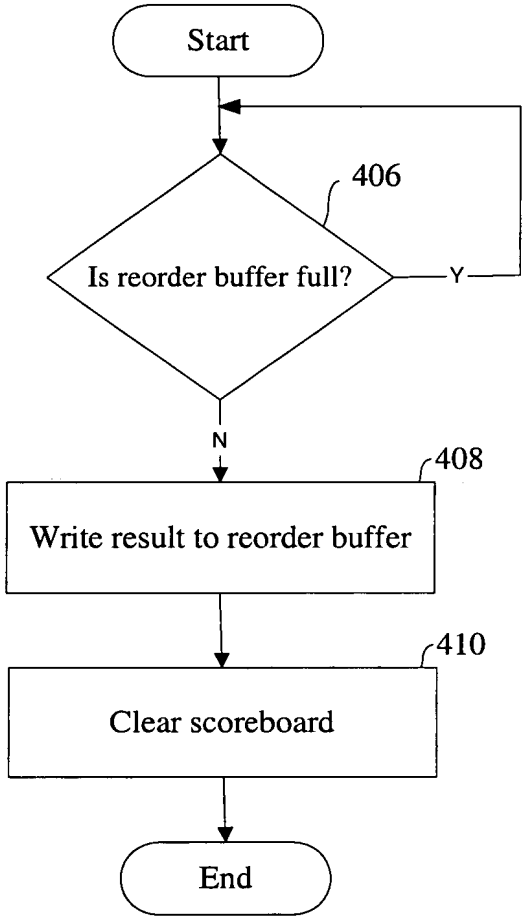

FIG. 4B

Docket #: 0605.4305

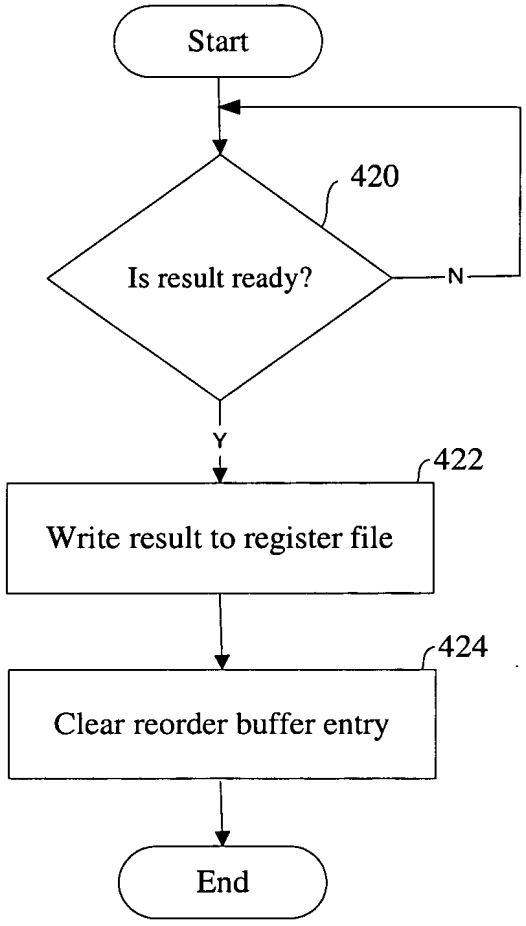

FIG. 4C

Docket No. 42390.P13805

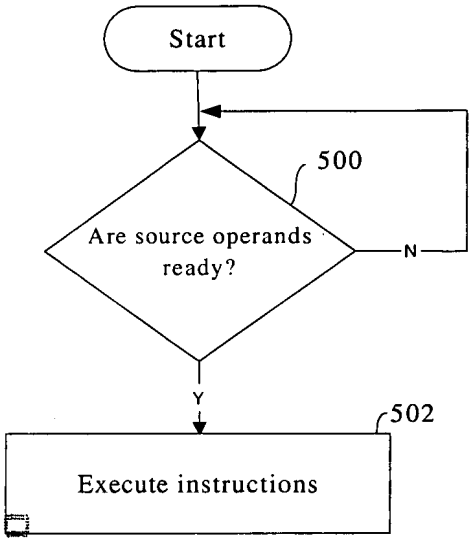

FIG. 5A

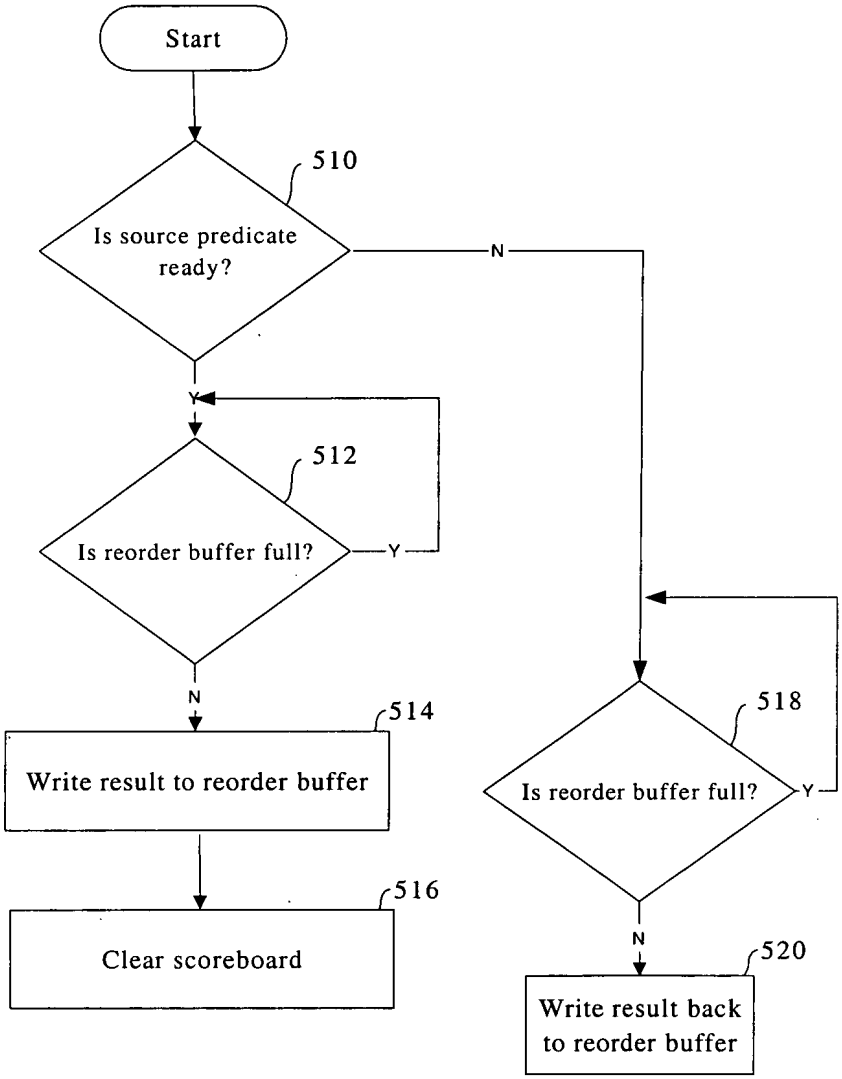

FIG. 5B

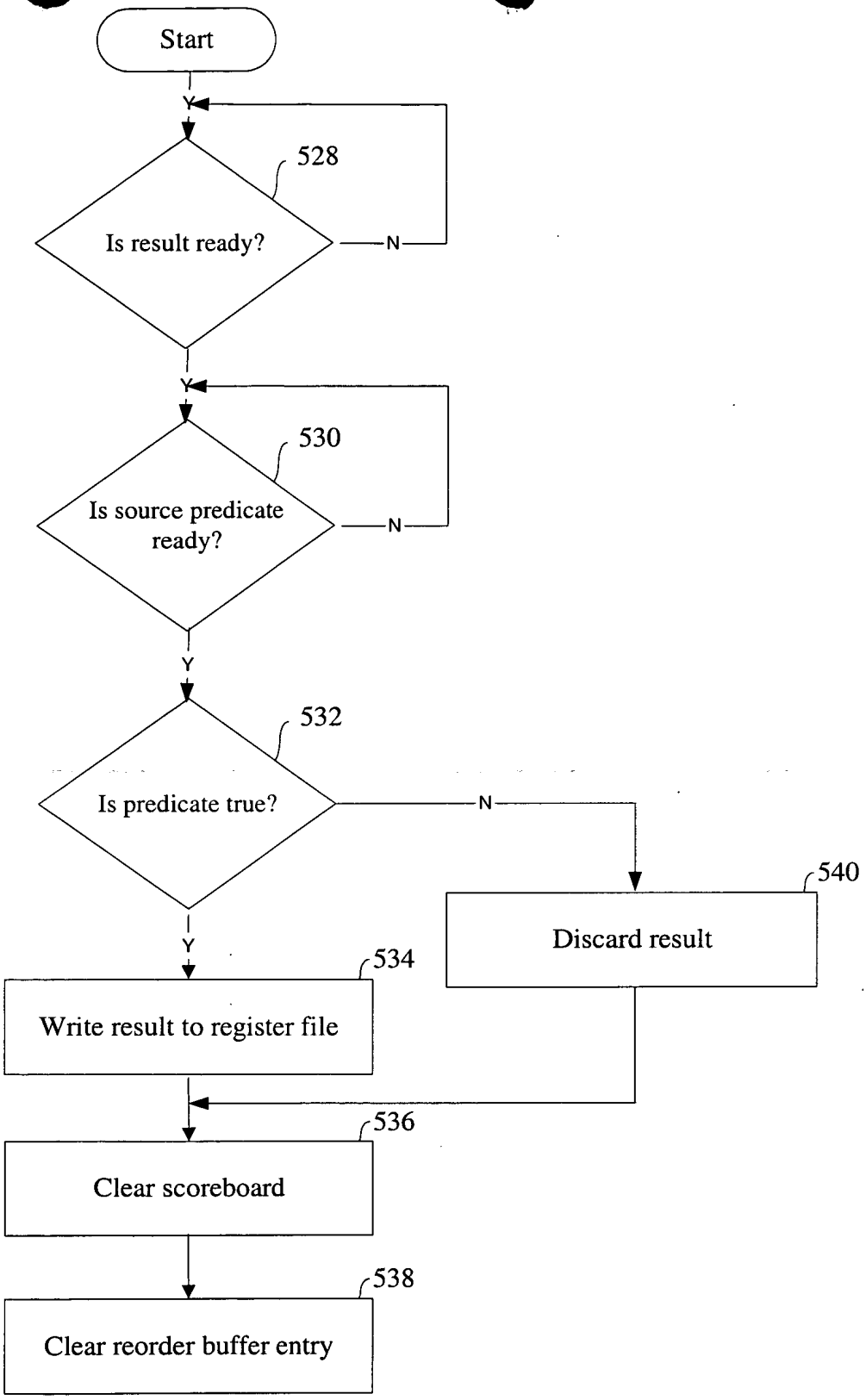
Start
Y
528
Is result ready?
N
Y
530
Is source predicate ready?
N
Y
532
Is predicate true?
N
540
Discard result
Y
534
Write result to register file
536
Clear scoreboard
538
Clear reorder buffer entry

FIG. 5C